## Phenylcyclohexanes

and a liquid-crystalline medium

The invention relates to novel phenylcyclohexanes

of the formula I

$$C_aH_{2a+1}-C$$

$$C-(CH_2) \xrightarrow{P} A \xrightarrow{Q^1} Z$$

in which n is 0 to 7,  $Q^1$  and  $Q^2$  are H, or one of these radicals is alternatively  $CH_3$ , r is 0, 1, 2, 3, 4 or 5, A is trans-1,4-cyclohexylene, 1,4-phenylene, 3-fluoro-1,4-phenylene or a single bond, X is F, Cl,  $-CF_3$ , -CN,  $-OCF_3$  or  $-OCHF_2$ , and Y and Z are each, independently of one another, H or F, with the proviso that, in the case where A is a single bond,  $Q^1 = Q^2 = H$  and simultaneously X = CN, Y and/or Z are F.

 $\mbox{EP-A 0 122 389 discloses similar compounds, for example of the formula A$ 

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However, these compounds do not satisfy all the demands, in particular with respect to (long-term) stability, for example for use in displays having an active matrix.

German Offenlegungsschrift 29 07 332 discloses similar compounds of the formula

$$C_nH_{2n+1}$$

These nematogenic compounds are preeminently suitable for improving the low-temperature behavior of nematic